

## AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS

The solubility in water of about 580 organic compounds, including many compounds of environmental interest, is tabulated here. Values are given at 25°C or at the nearest temperature to this where data are available. In some cases solubility values are given at other temperatures as well.

Solubility of solids is defined as the concentration of the compound in a solution that is in equilibrium with the solid phase at the specified temperature and one atmosphere pressure. For liquids whose water mixtures separate into two phases, the solubility given here is the concentration of the compound in the water-rich phase at equilibrium. In the case of gases (i.e., compounds whose vapor pressure at the specified temperature exceeds one atmosphere) the solubility is defined here as the concentration in the water phase when the partial pressure of the compound above the solution is 101.325 kPa (1 atm). Values for gases are marked with an asterisk.

All solubility values are expressed as mass percent of solute,  $S = 100 w_2$ , where the mass fraction  $w_2$  is given by  $w_2 = m_2/(m_1 + m_2)$ . In these equations  $m_2$  is the mass of solute and  $m_1$  the mass of water. This quantity is related to other common measures of solubility as follows:

$$\text{Molality: } m_2 = 1000w_2/M_2(1-w_2)$$

$$\text{Mole fraction: } x_2 = (w_2/M_2)/\{(w_2/M_2) + (1-w_2)/M_1\}$$

$$\text{Mass of solute per 100 g of H}_2\text{O: } r_2 = 100w_2/(1-w_2)$$

Here  $M_2$  is the molar mass of the solute and  $M_1 = 18.015 \text{ g/mol}$  is the molar mass of water. For small values of  $S$  the amount of substance concentration  $c_2$  in moles per liter is approximately  $10S/M_2$ .

Data have been selected from evaluated sources wherever possible, in particular the *IUPAC Solubility Data Series* (References 1-4). The primary source for each value is listed in the column following the solubility values. The user is cautioned that wide variations of data are found in the literature for the lower solubility compounds.

The table also contains values of the Henry's Law constant  $k_H$ , which provides a measure of the partition of a substance between the atmosphere and the aqueous phase. Here  $k_H$  is defined as the limit of  $p_2/c_2$  as the concentration approaches zero, where  $p_2$  is the partial pressure of the solute above the solution and  $c_2$  is the concentration in the solution at equilibrium (other formulations of Henry's Law are often used; see Reference 5). The values of  $k_H$  listed here are based on direct experimental measurement whenever available, but many of them are simply calculated as the ratio of the pure compound vapor pressure to the solubility. This approximation is reliable only for compounds of very low solubility. In fact, values of  $k_H$  found in the literature frequently differ by a factor of two or three, and variations over an order of magnitude are not unusual (Reference 5). Therefore the data given here should be taken only as a rough indication of the true Henry's Law constant, which is difficult to measure precisely.

All values of  $k_H$  refer to 25°C. If the vapor pressure of the compound at 25°C is greater than one atmosphere, it can be assumed that the  $k_H$  value has been calculated as  $101.325/c_2 \text{ kPa m}^3/\text{mol}$ . The source of the Henry's Law data is given in the last column. The air-water partition coefficient (i.e., ratio of air concentration to water concentration when both are expressed in the same units) is equal to  $k_H/RT$  or  $k_H/2.48$  in the units used here.

Compounds are listed by molecular formula following the Hill convention. To locate a compound by name or CAS Registry Number when the molecular formula is not known, use the table "Physical Constants of Organic Compounds" in Section 3 and its indexes to determine the molecular formula.

\* Indicates a value of  $S$  for a gas at a partial pressure of 101.325 kPa (1 atm) in equilibrium with the solution.

### REFERENCES

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**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	<i>t</i> /°C	<i>S/mass %</i>	Ref.	<i>k<sub>H</sub>/kPa m<sup>3</sup> mol<sup>-1</sup></i>	Ref.
CBrF <sub>3</sub>	Bromotrifluoromethane	25	0.032*	14		
CBr <sub>3</sub> F	Tribromofluoromethane	25	0.040	14		
CBr <sub>4</sub>	Tetrabromomethane	30	0.024	14		
CClF <sub>3</sub>	Chlorotrifluoromethane	25	0.009*	10	6.9	13
CCl <sub>2</sub> F <sub>2</sub>	Dichlorodifluoromethane	20	0.028*	5	41	13
CCl <sub>3</sub> F	Trichlorofluoromethane	20	0.11	5	10.2	13
CCl <sub>4</sub>	Tetrachloromethane	25	0.065	20	2.99	13
CF <sub>4</sub>	Tetrafluoromethane	25	0.00187*	19		
CHBr <sub>3</sub>	Tribromomethane	25	0.30	5	0.047	13
CHClF <sub>2</sub>	Chlorodifluoromethane	25	0.30*	10	3.0	13
CHCl <sub>2</sub> F	Dichlorofluoromethane	25	0.95*	10		
CHCl <sub>3</sub>	Trichloromethane	25	0.80	20	0.43	13
CHF <sub>3</sub>	Trifluoromethane	25	0.09*	14		
CHI <sub>3</sub>	Triiodomethane	25	0.012	14		
CH <sub>2</sub> BrCl	Bromochloromethane	25	1.7	10	0.18	13
CH <sub>2</sub> Br <sub>2</sub>	Dibromomethane	25	1.14	14	0.086	13
CH <sub>2</sub> ClF	Chlorofluoromethane	25	1.05*	14		
CH <sub>2</sub> Cl <sub>2</sub>	Dichloromethane	25	1.73	20	0.30	13
CH <sub>2</sub> I <sub>2</sub>	Diiodomethane	30	0.124	10	0.032	13
CH <sub>3</sub> Br	Bromomethane	20	1.80*	5	0.63	13
CH <sub>3</sub> Cl	Chloromethane	25	0.535*	5	0.98	13
CH <sub>3</sub> F	Fluoromethane	30	0.177*	5		
CH <sub>3</sub> I	Iodomethane	20	1.4	10	0.54	13
CH <sub>3</sub> NO <sub>2</sub>	Nitromethane	25	11.1	10		
CH <sub>4</sub>	Methane	25	0.00227*	18	67.4	5
CO	Carbon monoxide	25	0.00276*	18		
CO <sub>2</sub>	Carbon dioxide	25	0.1501	18		
CS <sub>2</sub>	Carbon disulfide	20	0.210	10		
C <sub>2</sub> ClF <sub>5</sub>	Chloropentafluoroethane	25	0.006*	10	260	13
C <sub>2</sub> Cl <sub>2</sub> F <sub>4</sub>	1,2-Dichlorotetrafluoroethane	25	0.013*	10	127	13
C <sub>2</sub> Cl <sub>3</sub> F <sub>3</sub>	1,1,2-Trichlorotrifluoroethane	25	0.017	10	32	13
C <sub>2</sub> Cl <sub>4</sub>	Tetrachloroethylene	25	0.026	20	1.73	13
C <sub>2</sub> Cl <sub>4</sub> F <sub>2</sub>	1,1,2,2-Tetrachloro-1,2-difluoroethane	25	0.012	10		
C <sub>2</sub> Cl <sub>6</sub>	Hexachloroethane	25	0.0050	5	0.85	13
C <sub>2</sub> F <sub>4</sub>	Tetrafluoroethylene	25	0.0158*	19		
C <sub>2</sub> HCl <sub>3</sub>	Trichloroethylene	25	0.11	5	1.03	13
C <sub>2</sub> HCl <sub>5</sub>	Pentachloroethane	25	0.048	5	0.25	13
C <sub>2</sub> H <sub>2</sub>	Acetylene	25	0.1081*	19		
C <sub>2</sub> H <sub>2</sub> Br <sub>4</sub>	1,1,2,2-Tetrabromoethane	30	0.0651	10		
C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	1,1-Dichloroethylene	25	0.040	5	2.62	13
C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	cis-1,2-Dichloroethylene	25	0.35	5	0.46	13
C <sub>2</sub> H <sub>2</sub> Cl <sub>2</sub>	trans-1,2-Dichloroethylene	25	0.63	5	0.96	13
C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1,1,1,2-Tetrachloroethane	25	0.11	5	0.24	13
C <sub>2</sub> H <sub>2</sub> Cl <sub>4</sub>	1,1,2,2-Tetrachloroethane	25	0.30	5	0.026	13
C <sub>2</sub> H <sub>3</sub> Cl	Chloroethylene	25	0.27*	5	2.68	13
C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	1,1,1-Trichloroethane	25	0.072	5	1.76	13
C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub>	1,1,2-Trichloroethane	25	0.442	5	0.092	13
C <sub>2</sub> H <sub>4</sub>	Ethylene	25	0.01336*	19	21.7	5
C <sub>2</sub> H <sub>4</sub> BrCl	1-Bromo-2-chloroethane	30	0.683	10		
C <sub>2</sub> H <sub>4</sub> Br <sub>2</sub>	1,2-Dibromoethane	25	0.17	5	0.066	13
C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,1-Dichloroethane	25	0.51	5	0.63	13
C <sub>2</sub> H <sub>4</sub> Cl <sub>2</sub>	1,2-Dichloroethane	25	0.75	20	0.14	13
C <sub>2</sub> H <sub>4</sub> O <sub>2</sub>	Methyl formate	25	23	10		
C <sub>2</sub> H <sub>5</sub> Br	Bromoethane	20	0.91	10	1.23	13
C <sub>2</sub> H <sub>5</sub> Cl	Chloroethane	20	0.57*	5	1.02	13
C <sub>2</sub> H <sub>5</sub> F	Fluoroethane	25	0.216*	14		
C <sub>2</sub> H <sub>5</sub> I	Iodoethane	30	3.88	10	0.52	13
C <sub>2</sub> H <sub>5</sub> NO	Acetamide	20	40.8	10		
C <sub>2</sub> H <sub>5</sub> NO <sub>2</sub>	Nitroethane	25	4.68	10		
C <sub>2</sub> H <sub>6</sub>	Ethane	25	0.00568*	18	50.6	5

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	t/°C	S/mass %	Ref.	<i>k<sub>H</sub>/kPa m<sup>3</sup> mol<sup>-1</sup></i>	Ref.
C <sub>2</sub> H <sub>6</sub> O	Dimethyl ether	24	35.3*	10	0.077	13
C <sub>2</sub> H <sub>6</sub> OS	Dimethyl sulfoxide	25	25.3	10		
C <sub>2</sub> H <sub>6</sub> S	Dimethyl sulfide	25	2	10		
C <sub>3</sub> Cl <sub>6</sub>	Hexachloropropene	25	0.00170	14		
C <sub>3</sub> F <sub>6</sub>	Perfluoropropene	25	0.0194*	14		
C <sub>3</sub> F <sub>8</sub>	Perfluoropropane	15	0.0015*	14		
C <sub>3</sub> H <sub>3</sub> N	2-Propenenitrile	20	7.35	10		
C <sub>3</sub> H <sub>4</sub>	Propyne	25	0.364*	5	1.11	5
C <sub>3</sub> H <sub>4</sub> Cl <sub>2</sub>	<i>cis</i> -1,3-Dichloropropene	25	0.27	5	0.24	5
C <sub>3</sub> H <sub>4</sub> Cl <sub>2</sub>	<i>trans</i> -1,3-Dichloropropene	20	0.28	5	0.18	5
C <sub>3</sub> H <sub>4</sub> Cl <sub>2</sub>	2,3-Dichloropropene	25	0.215	5	0.36	5
C <sub>3</sub> H <sub>4</sub> O	Acrolein	20	20.8	10		
C <sub>3</sub> H <sub>5</sub> Cl	3-Chloropropene	25	0.33	5	1.10	5
C <sub>3</sub> H <sub>5</sub> ClO	Epichlorohydrin	20	6.58	10	0.003	13
C <sub>3</sub> H <sub>5</sub> Cl <sub>3</sub>	1,2,3-Trichloropropane	20	0.19	10	0.038	13
C <sub>3</sub> H <sub>5</sub> N	Propanenitrile	25	10.3	10		
C <sub>3</sub> H <sub>6</sub>	Propene	25	0.0200*	5	21.3	5
C <sub>3</sub> H <sub>6</sub>	Cyclopropane	25	0.0484*	19		
C <sub>3</sub> H <sub>6</sub> Br <sub>2</sub>	1,2-Dibromopropane	25	0.143	10		
C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub>	1,2-Dichloropropane	25	0.247	10	0.29	13
C <sub>3</sub> H <sub>6</sub> N <sub>6</sub> O <sub>6</sub>	Hexahydro-1,3,5-trinitro-1,3,5-triazine	25	0.0060	17		
C <sub>3</sub> H <sub>6</sub> O	Propanal	25	30.6	10		
C <sub>3</sub> H <sub>6</sub> O	Methyloxirane	20	40.5	10	0.0087	13
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	Ethyl formate	25	11.8	10		
C <sub>3</sub> H <sub>6</sub> O <sub>2</sub>	Methyl acetate	20	24.5	10		
C <sub>3</sub> H <sub>7</sub> Br	1-Bromopropane	30	0.230	10	3.8	13
C <sub>3</sub> H <sub>7</sub> Br	2-Bromopropane	18	0.286	10	1.27	13
C <sub>3</sub> H <sub>7</sub> Cl	1-Chloropropane	20	0.271	10	1.41	13
C <sub>3</sub> H <sub>7</sub> Cl	2-Chloropropane	12	0.342	10		
C <sub>3</sub> H <sub>7</sub> F	1-Fluoropropane	14	0.386*	14		
C <sub>3</sub> H <sub>7</sub> F	2-Fluoropropane	15	0.366	14		
C <sub>3</sub> H <sub>7</sub> I	1-Iodopropane	30	0.104	10	0.93	13
C <sub>3</sub> H <sub>7</sub> I	2-Iodopropane	20	0.140	10		
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	1-Nitropropane	25	1.50	10		
C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>	2-Nitropropane	25	1.71	10		
C <sub>3</sub> H <sub>8</sub>	Propane	25	0.00669*	18	71.6	5
C <sub>3</sub> H <sub>8</sub> O <sub>2</sub>	Dimethoxymethane	16	24.4	10		
C <sub>4</sub> F <sub>8</sub>	Perfluorocyclobutane	21	0.014*	14		
C <sub>4</sub> H <sub>4</sub> N <sub>2</sub>	Succinonitrile	25	11.5	10		
C <sub>4</sub> H <sub>4</sub> O	Furan	25	1	10	0.54	13
C <sub>4</sub> H <sub>5</sub> N	Methylacrylonitrile	20	2.57	10		
C <sub>4</sub> H <sub>5</sub> N	Pyrrole	25	4.5	10		
C <sub>4</sub> H <sub>6</sub>	1,3-Butadiene	25	0.0735*	5	20.7	13
C <sub>4</sub> H <sub>6</sub>	1-Butyne	25	0.287*	5	1.91	5
C <sub>4</sub> H <sub>6</sub> O	<i>trans</i> -2-Butenal	20	15.6	10		
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	Methacrylic acid	20	8.9	10		
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	<i>trans</i> -Crotonic acid	25	9	10		
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	Vinyl acetate	20	2.0	10		
C <sub>4</sub> H <sub>6</sub> O <sub>2</sub>	Methyl acrylate	25	4.94	10		
C <sub>4</sub> H <sub>7</sub> Cl	1-Chloro-2-methylpropene	25	0.916	5	0.12	5
C <sub>4</sub> H <sub>7</sub> N	Butanenitrile	20	3.3	10		
C <sub>4</sub> H <sub>8</sub>	1-Butene	25	0.0222*	5	25.6	13
C <sub>4</sub> H <sub>8</sub>	Isobutene	25	0.0263*	5	21.6	13
C <sub>4</sub> H <sub>8</sub> Cl <sub>2</sub> O	Bis(2-chloroethyl) ether	25	1.03	20	0.003	13
C <sub>4</sub> H <sub>8</sub> O	<i>cis</i> -Crotonyl alcohol	20	16.6	10		
C <sub>4</sub> H <sub>8</sub> O	Ethyl vinyl ether	20	0.9	10		
C <sub>4</sub> H <sub>8</sub> O	Butanal	25	7.1	10		
C <sub>4</sub> H <sub>8</sub> O	Isobutanal	20	9.1	10		
C <sub>4</sub> H <sub>8</sub> O	2-Butanone	25	25.9	20		
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	2-Methylpropanoic acid	20	22.8	10		

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	<i>t</i> /°C	<i>S</i> /mass %	Ref.	<i>k<sub>H</sub></i> /kPa m <sup>3</sup> mol <sup>-1</sup>	Ref.
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Propyl formate	22	2.05	10		
C <sub>4</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acetate	25	8.08	10		
C <sub>4</sub> H <sub>9</sub> Br	1-Bromobutane	30	0.0608	10	1.2	13
C <sub>4</sub> H <sub>9</sub> Cl	1-Chlorobutane	20	0.11	10	1.54	13
C <sub>4</sub> H <sub>9</sub> Cl	1-Chloro-2-methylpropane	12	0.092	10		
C <sub>4</sub> H <sub>9</sub> I	1-Iodobutane	17	0.012	10	1.87	13
C <sub>4</sub> H <sub>10</sub>	Butane	25	0.00724*	18	95.9	5
C <sub>4</sub> H <sub>10</sub>	Isobutane	25	0.00535*	18	120	5
C <sub>4</sub> H <sub>10</sub> O	Diethyl ether	25	6.04	10	0.088	13
C <sub>4</sub> H <sub>10</sub> O	1-Butanol	0	10.4	1		
		25	7.4	1		
		50	6.4	1		
C <sub>4</sub> H <sub>10</sub> O	2-Butanol	10	23.9	1		
		25	18.1	1		
		50	14.0	1		
C <sub>4</sub> H <sub>10</sub> O	2-Methyl-1-propanol	0	11.5	1		
		25	8.1	1		
		50	6.5	1		
C <sub>4</sub> H <sub>10</sub> S	1-Butanethiol	20	0.0597	10		
C <sub>4</sub> H <sub>11</sub> NO <sub>2</sub>	Diethanolamine	20	95.4	10		
C <sub>4</sub> H <sub>12</sub> Si	Tetramethylsilane	25	0.00196	10		
C <sub>5</sub> H <sub>4</sub> O <sub>2</sub>	Furfural	20	8.2	10		
C <sub>5</sub> H <sub>6</sub>	1,3-Cyclopentadiene	25	0.068	3		
C <sub>5</sub> H <sub>7</sub> NO <sub>2</sub>	Ethyl cyanoacetate	20	25.9	10		
C <sub>5</sub> H <sub>8</sub>	1,4-Pentadiene	25	0.056	3	12	5
C <sub>5</sub> H <sub>8</sub>	2-Methyl-1,3-butadiene	25	0.061	3	7.78	5
		50	0.076*	3		
C <sub>5</sub> H <sub>8</sub>	1-Pentyne	25	0.157	3	2.5	5
C <sub>5</sub> H <sub>8</sub>	Cyclopentene	25	0.054	3	6.56	13
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	Ethyl acrylate	25	1.50	10		
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	Methyl methacrylate	20	1.56	10		
C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>	2,4-Pentanedione	20	16.6	10		
C <sub>5</sub> H <sub>10</sub>	1-Pentene	25	0.0148	3	40.3	5
C <sub>5</sub> H <sub>10</sub>	cis-2-Pentene	25	0.0203	3	22.8	5
C <sub>5</sub> H <sub>10</sub>	3-Methyl-1-butene	25	0.013*	3	54.7	5
C <sub>5</sub> H <sub>10</sub>	2-Methyl-2-butene	25	0.041	3		
C <sub>5</sub> H <sub>10</sub>	Cyclopentane	25	0.0157	3	19.1	13
C <sub>5</sub> H <sub>10</sub> O	2-Pentanone	25	5.5	20		
C <sub>5</sub> H <sub>10</sub> O	3-Pentanone	25	4.72	20		
C <sub>5</sub> H <sub>10</sub> O	2-Methyltetrahydrofuran	25	13.9	10	0.67	13
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Pentanoic acid	20	2.4	10		
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	3-Methylbutanoic acid	21	4.1	10		
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Isobutyl formate	22	1.0	10		
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Propyl acetate	20	2.3	10		
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Isopropyl acetate	20	2.9	10		
C <sub>5</sub> H <sub>10</sub> O <sub>2</sub>	Ethyl propanoate	20	1.92	10		
C <sub>5</sub> H <sub>11</sub> Br	1-Bromopentane	25	0.0127	10		
C <sub>5</sub> H <sub>11</sub> Cl	1-Chloropentane	25	0.02	10	2.37	13
C <sub>5</sub> H <sub>12</sub>	Pentane	25	0.0041	3	128	13
C <sub>5</sub> H <sub>12</sub>	Isopentane	25	0.00485	3	479	13
C <sub>5</sub> H <sub>12</sub>	Neopentane	25	0.00332*	3	220	13
C <sub>5</sub> H <sub>12</sub> O	1-Pentanol	0	3.1	1		
		25	2.20	1		
		50	1.8	1		
C <sub>5</sub> H <sub>12</sub> O	2-Pentanol	25	4.3	21		
C <sub>5</sub> H <sub>12</sub> O	3-Pentanol	25	5.6	21		
C <sub>5</sub> H <sub>12</sub> O	2-Methyl-1-butanol	25	3.0	3		
C <sub>5</sub> H <sub>12</sub> O	3-Methyl-1-butanol	25	2.7	1		
C <sub>5</sub> H <sub>12</sub> O	2-Methyl-2-butanol	25	11.0	1		
C <sub>5</sub> H <sub>12</sub> O	3-Methyl-2-butanol	25	5.6	1		

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	<i>t</i> /°C	S/mass %	Ref.	<i>k<sub>H</sub></i> /kPa m <sup>3</sup> mol <sup>-1</sup>	Ref.
C <sub>5</sub> H <sub>12</sub> O	2,2-Dimethyl-1-propanol	25	3.5	1		
C <sub>5</sub> H <sub>12</sub> O	Methyl <i>tert</i> -butyl ether	25	3.62	20	0.070	13
C <sub>6</sub> Cl <sub>6</sub>	Hexachlorobenzene	25	0.000005	2	0.131	11
C <sub>6</sub> HCl <sub>5</sub>	Pentachlorobenzene	25	0.000055	2	0.085	11
C <sub>6</sub> HCl <sub>5</sub> O	Pentachlorophenol	25	0.0010	2		
C <sub>6</sub> H <sub>2</sub> Br <sub>4</sub>	1,2,4,5-Tetrabromobenzene	25	0.0000434	2		
C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	1,2,3,4-Tetrachlorobenzene	25	0.0000433	2	0.144	11
C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	1,2,3,5-Tetrachlorobenzene	25	0.000346	2	0.59	11
C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub>	1,2,4,5-Tetrachlorobenzene	25	0.0000606	2	0.122	11
C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub> O	2,3,4,6-Tetrachlorophenol	25	1.8	2		
C <sub>6</sub> H <sub>2</sub> Cl <sub>4</sub> O <sub>2</sub>	3,4,5,6-Tetrachloro-1,2-benzenediol	25	0.071	8		
C <sub>6</sub> H <sub>3</sub> Br <sub>3</sub>	1,2,4-Tribromobenzene	25	0.0010	2		
C <sub>6</sub> H <sub>3</sub> Br <sub>3</sub>	1,3,5-Tribromobenzene	25	0.0000789	2		
C <sub>6</sub> H <sub>3</sub> Br <sub>3</sub> O	2,4,6-Tribromophenol	15	0.0007	2		
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub>	1,2,3-Trichlorobenzene	25	0.00309	2	0.242	11
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub>	1,2,4-Trichlorobenzene	25	0.00379	2	0.277	11
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub>	1,3,5-Trichlorobenzene	25	0.000655	2	1.1	11
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub> O	2,4,5-Trichlorophenol	25	0.1	2		
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub> O	2,4,6-Trichlorophenol	25	0.04	2		
C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub> O <sub>2</sub>	3,4,5-Trichloro-1,2-benzenediol	25	0.051	8		
C <sub>6</sub> H <sub>4</sub> BrCl	1-Bromo-2-chlorobenzene	25	0.0124	2		
C <sub>6</sub> H <sub>4</sub> BrCl	1-Bromo-3-chlorobenzene	25	0.0118	2		
C <sub>6</sub> H <sub>4</sub> BrCl	1-Bromo-4-chlorobenzene	25	0.00442	2		
C <sub>6</sub> H <sub>4</sub> BrI	1-Bromo-4-iodobenzene	25	0.000794	2		
C <sub>6</sub> H <sub>4</sub> Br <sub>2</sub>	<i>o</i> -Dibromobenzene	25	0.00748	2		
C <sub>6</sub> H <sub>4</sub> Br <sub>2</sub>	<i>m</i> -Dibromobenzene	25	0.0064	2		
C <sub>6</sub> H <sub>4</sub> Br <sub>2</sub>	<i>p</i> -Dibromobenzene	25	0.0020	2		
C <sub>6</sub> H <sub>4</sub> Br <sub>2</sub> O	2,4-Dibromophenol	25	0.2	2		
C <sub>6</sub> H <sub>4</sub> CII	1-Chloro-2-iodobenzene	25	0.00689	2		
C <sub>6</sub> H <sub>4</sub> CII	1-Chloro-3-iodobenzene	25	0.00674	2		
C <sub>6</sub> H <sub>4</sub> CII	1-Chloro-4-iodobenzene	25	0.00311	2		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	<i>o</i> -Dichlorobenzene	0	0.0142	2		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>		25	0.0147	2	0.244	11
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>		50	0.0212	2		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	<i>m</i> -Dichlorobenzene	10	0.0103	2		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>		25	0.0106	2	0.376	11
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>		50	0.0165	2		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	<i>p</i> -Dichlorobenzene	10	0.00512	2		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>		25	0.00829	2	0.160	11
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>		50	0.0167	2		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> O	2,4-Dichlorophenol	20	0.45	2		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> O <sub>2</sub>	3,5-Dichloro-1,2-benzenediol	25	0.78	8		
C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> O <sub>2</sub>	4,5-Dichloro-1,2-benzenediol	25	1.19	8		
C <sub>6</sub> H <sub>4</sub> F <sub>2</sub>	<i>o</i> -Difluorobenzene	25	0.114	2		
C <sub>6</sub> H <sub>4</sub> F <sub>2</sub>	<i>m</i> -Difluorobenzene	25	0.114	2		
C <sub>6</sub> H <sub>4</sub> F <sub>2</sub>	<i>p</i> -Difluorobenzene	25	0.122	2		
C <sub>6</sub> H <sub>4</sub> I <sub>2</sub>	<i>o</i> -Diiodobenzene	25	0.00192	2		
C <sub>6</sub> H <sub>4</sub> I <sub>2</sub>	<i>m</i> -Diiodobenzene	25	0.000185	2		
C <sub>6</sub> H <sub>4</sub> I <sub>2</sub>	<i>p</i> -Diiodobenzene	25	0.000893	2		
C <sub>6</sub> H <sub>5</sub> Br	Bromobenzene	10	0.0387	2		
C <sub>6</sub> H <sub>5</sub> Br		25	0.0445	2	0.21	5
C <sub>6</sub> H <sub>5</sub> Br		40	0.0516	2		
C <sub>6</sub> H <sub>5</sub> BrO	<i>p</i> -Bromophenol	25	1.86	2		
C <sub>6</sub> H <sub>5</sub> Cl	Chlorobenzene	10	0.0387	2		
C <sub>6</sub> H <sub>5</sub> Cl		25	0.0495	2	0.38	11
C <sub>6</sub> H <sub>5</sub> Cl		50	0.0882	2		
C <sub>6</sub> H <sub>5</sub> ClO	<i>o</i> -Chlorophenol	25	2.0	2		
C <sub>6</sub> H <sub>5</sub> ClO	<i>m</i> -Chlorophenol	25	2.2	2		
C <sub>6</sub> H <sub>5</sub> ClO	<i>p</i> -Chlorophenol	25	2.7	2		
C <sub>6</sub> H <sub>5</sub> F	Fluorobenzene	27	0.154	2	0.70	11

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	<i>t</i> /°C	<i>S</i> /mass %	Ref.	<i>k<sub>H</sub></i> /kPa m <sup>3</sup> mol <sup>-1</sup>	Ref.
C <sub>6</sub> H <sub>5</sub> I	Iodobenzene	10	0.0193	2	0.078	11
		25	0.0226	2		
		45	0.0279	2		
C <sub>6</sub> H <sub>5</sub> NO <sub>2</sub>	Nitrobenzene	25	0.21	17		
	Benzene	10	0.178	3		
C <sub>6</sub> H <sub>6</sub>		25	0.177	3	0.557	11
		50	0.208	3		
C <sub>6</sub> H <sub>6</sub> ClN	<i>o</i> -Chloroaniline	25	0.876	10		
C <sub>6</sub> H <sub>6</sub> O	Phenol	25	8.66	10		
C <sub>6</sub> H <sub>7</sub> N	Aniline	25	3.38	10	14	15
C <sub>6</sub> H <sub>8</sub>	1,4-Cyclohexadiene	25	0.08	3	1.03	13
C <sub>6</sub> H <sub>8</sub> N <sub>2</sub>	Adiponitrile	20	0.80	16		
C <sub>6</sub> H <sub>8</sub> O <sub>4</sub>	Dimethyl maleate	25	8.0	10		
C <sub>6</sub> H <sub>10</sub>	1,5-Hexadiene	25	0.017	3		
C <sub>6</sub> H <sub>10</sub>	1-Hexyne	25	0.036	3	4.14	13
C <sub>6</sub> H <sub>10</sub>	Cyclohexene	25	0.016	3	4.57	13
C <sub>6</sub> H <sub>10</sub> O	Cyclohexanone	25	8.8	20		
C <sub>6</sub> H <sub>10</sub> O	Mesityl oxide	20	2.89	10		
C <sub>6</sub> H <sub>10</sub> O <sub>3</sub>	Ethyl acetoacetate	25	12	10		
C <sub>6</sub> H <sub>11</sub> NO	Caprolactam	25	84.0	10		
C <sub>6</sub> H <sub>12</sub>	1-Hexene	25	0.0053	3	41.8	5
C <sub>6</sub> H <sub>12</sub>	<i>trans</i> -2-Hexene	25	0.0067	3		
C <sub>6</sub> H <sub>12</sub>	2-Methyl-1-pentene	25	0.0078	3	28.1	5
C <sub>6</sub> H <sub>12</sub>	4-Methyl-1-pentene	25	0.0048	3	63.2	5
C <sub>6</sub> H <sub>12</sub>	2,3-Dimethyl-1-butene	30	0.046	3		
C <sub>6</sub> H <sub>12</sub>	Cyclohexane	25	0.0058	3	19.4	13
C <sub>6</sub> H <sub>12</sub>	Methylcyclopentane	25	0.0043	3	36.7	5
C <sub>6</sub> H <sub>12</sub> O	1-Hexen-3-ol	25	2.52	1		
C <sub>6</sub> H <sub>12</sub> O	4-Hexen-2-ol	25	3.81	1		
C <sub>6</sub> H <sub>12</sub> O	Cyclohexanol	10	4.62	1		
		25	3.8	1		
		40	3.30	1		
C <sub>6</sub> H <sub>12</sub> O	Butyl vinyl ether	20	0.3	10		
C <sub>6</sub> H <sub>12</sub> O	2-Hexanone	20	1.75	10		
C <sub>6</sub> H <sub>12</sub> O	4-Methyl-2-pentanone	25	1.7	10		
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Hexanoic acid	20	0.958	10		
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Butyl acetate	20	0.68	10		
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Isobutyl acetate	20	0.63	10		
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	<i>sec</i> -Butyl acetate	20	0.62	10		
C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	Ethyl butanoate	20	0.49	10		
C <sub>6</sub> H <sub>14</sub>	Hexane	25	0.0011	3	183	13
		60	0.00136	3		
C <sub>6</sub> H <sub>14</sub>	2-Methylpentane	25	0.00137	3	176	13
C <sub>6</sub> H <sub>14</sub>	3-Methylpentane	25	0.00129	3	170	13
C <sub>6</sub> H <sub>14</sub>	2,2-Dimethylbutane	25	0.0021	3	199	13
C <sub>6</sub> H <sub>14</sub>	2,3-Dimethylbutane	25	0.0021	3	144	13
C <sub>6</sub> H <sub>14</sub> O	1-Hexanol	0	0.79	1		
		25	0.60	1		
		50	0.51	1		
C <sub>6</sub> H <sub>14</sub> O	2-Hexanol	25	1.4	1		
C <sub>6</sub> H <sub>14</sub> O	3-Hexanol	25	1.6	1		
C <sub>6</sub> H <sub>14</sub> O	Dipropyl ether	25	0.49	10	0.26	13
C <sub>6</sub> H <sub>14</sub> O	2-Methyl-1-pentanol	25	0.81	1		
C <sub>6</sub> H <sub>14</sub> O	4-Methyl-1-pentanol	25	0.76	1		
C <sub>6</sub> H <sub>14</sub> O	2-Methyl-2-pentanol	25	3.2	1		
C <sub>6</sub> H <sub>14</sub> O	3-Methyl-2-pentanol	25	1.9	1		
C <sub>6</sub> H <sub>14</sub> O	4-Methyl-2-pentanol	27	1.5	1		
C <sub>6</sub> H <sub>14</sub> O	2-Methyl-3-pentanol	25	2.0	1		
C <sub>6</sub> H <sub>14</sub> O	3-Methyl-3-pentanol	25	4.3	1		
C <sub>6</sub> H <sub>14</sub> O	2-Ethyl-1-butanol	25	1.0	1		

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	<i>t</i> /°C	S/mass %	Ref.	<i>k<sub>H</sub></i> /kPa m <sup>3</sup> mol <sup>-1</sup>	Ref.
C <sub>6</sub> H <sub>14</sub> O	2,2-Dimethyl-1-butanol	25	0.8	1		
C <sub>6</sub> H <sub>14</sub> O	Diisopropyl ether	20	1.2	10	0.26	13
C <sub>6</sub> H <sub>14</sub> O	2,3-Dimethyl-2-butanol	25	4.2	1		
C <sub>6</sub> H <sub>14</sub> O	3,3-Dimethyl-2-butanol	25	2.4	1		
C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>	1,1-Diethoxyethane	25	5	10		
C <sub>6</sub> H <sub>15</sub> N	Dipropylamine	20	2.5	10		
C <sub>6</sub> H <sub>15</sub> N	Triethylamine	20	5.5	10		
C <sub>7</sub> H <sub>14</sub> Cl <sub>4</sub> O	2,3,4,6-Tetrachloro-5-methylphenol	25	0.00061	2		
C <sub>7</sub> H <sub>5</sub> Cl <sub>3</sub>	(Trichloromethyl)benzene	5	0.0053	10		
C <sub>7</sub> H <sub>5</sub> Cl <sub>3</sub> O	2,4,6-Trichloro-3-methylphenol	25	0.0112	2		
C <sub>7</sub> H <sub>5</sub> N	Benzonitrile	25	0.2	10		
C <sub>7</sub> H <sub>5</sub> NO	Benzoxazole	20	0.834	6		
C <sub>7</sub> H <sub>6</sub> Cl <sub>2</sub>	(Dichloromethyl)benzene	30	0.025	10		
C <sub>7</sub> H <sub>6</sub> Cl <sub>2</sub> O	2,6-Dichloro-4-methylphenol	25	0.0673	2		
C <sub>7</sub> H <sub>6</sub> Cl <sub>2</sub> O	2,4-Dichloro-6-methylphenol	25	0.0283	2		
C <sub>7</sub> H <sub>6</sub> N <sub>2</sub>	1 <i>H</i> -Benzimidazole	20	0.201	6		
C <sub>7</sub> H <sub>6</sub> N <sub>2</sub>	1 <i>H</i> -Indazole	20	0.0827	6		
C <sub>7</sub> H <sub>6</sub> O	Benzaldehyde	20	0.3	10		
C <sub>7</sub> H <sub>6</sub> O <sub>2</sub>	Salicylaldehyde	86	1.68	10		
C <sub>7</sub> H <sub>7</sub> Br	<i>p</i> -Bromotoluene	25	0.011	2		
C <sub>7</sub> H <sub>7</sub> Cl	(Chloromethyl)benzene	20	0.0493	10		
C <sub>7</sub> H <sub>7</sub> ClO	4-Chloro-2-methylphenol	25	0.68	2		
C <sub>7</sub> H <sub>7</sub> ClO	4-Chloro-3-methylphenol	25	0.40	2		
C <sub>7</sub> H <sub>7</sub> ClO	2-Chloro-6-methylphenol	25	0.36	2		
C <sub>7</sub> H <sub>7</sub> NO <sub>3</sub>	2-Nitroanisole	30	0.619	10		
C <sub>7</sub> H <sub>8</sub>	Toluene	5	0.063	3		
C <sub>7</sub> H <sub>8</sub>		25	0.053	3	0.680	13
C <sub>7</sub> H <sub>8</sub>	1,3,5-Cycloheptatriene	25	0.064	3	0.47	13
C <sub>7</sub> H <sub>8</sub>	1,6-Heptadiyne	25	0.125	3		
C <sub>7</sub> H <sub>8</sub> O	Benzyl alcohol	20	0.08	10		
C <sub>7</sub> H <sub>8</sub> O	<i>o</i> -Cresol	40	3.08	10		
C <sub>7</sub> H <sub>8</sub> O	<i>m</i> -Cresol	40	2.51	10		
C <sub>7</sub> H <sub>8</sub> O	<i>p</i> -Cresol	40	2.26	10		
C <sub>7</sub> H <sub>8</sub> O	Anisole	25	0.19	20	0.025	13
C <sub>7</sub> H <sub>9</sub> N	<i>o</i> -Methylaniline	20	1.66	10		
C <sub>7</sub> H <sub>9</sub> N	<i>p</i> -Methylaniline	21	7.35	10		
C <sub>7</sub> H <sub>12</sub>	1-Heptyne	25	0.0094	3	4.47	13
C <sub>7</sub> H <sub>12</sub>	Cycloheptene	25	0.0066	3	4.9	13
C <sub>7</sub> H <sub>12</sub>	1-Methylcyclohexene	25	0.0052	3		
C <sub>7</sub> H <sub>14</sub>	1-Heptene	25	0.032	3	40.3	13
C <sub>7</sub> H <sub>14</sub>	<i>trans</i> -2-Heptene	25	0.015	3	42.2	13
C <sub>7</sub> H <sub>14</sub>	Cycloheptane	25	0.0030	3	9.59	13
C <sub>7</sub> H <sub>14</sub>	Methylcyclohexane	25	0.00151	3	43.3	13
C <sub>7</sub> H <sub>14</sub>		50	0.0019	3		
C <sub>7</sub> H <sub>14</sub>	Ethylcyclopentane	20	0.012	3		
C <sub>7</sub> H <sub>14</sub> O	2-Heptanone	25	0.43	10		
C <sub>7</sub> H <sub>14</sub> O	3-Heptanone	20	1.43	10		
C <sub>7</sub> H <sub>14</sub> O	2,4-Dimethyl-3-pentanone	20	0.59	10		
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Pentyl acetate	20	0.17	10		
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Isopentyl acetate	20	0.2	10		
C <sub>7</sub> H <sub>14</sub> O <sub>2</sub>	Ethyl 3-methylbutanoate	20	0.2	10		
C <sub>7</sub> H <sub>16</sub>	Heptane	0	0.0003	3		
C <sub>7</sub> H <sub>16</sub>		25	0.00024	3	209	13
C <sub>7</sub> H <sub>16</sub>		40	0.00025	3		
C <sub>7</sub> H <sub>16</sub>	2-Methylhexane	25	0.00025	3	346	5
C <sub>7</sub> H <sub>16</sub>	3-Methylhexane	25	0.00026	3	249	13
C <sub>7</sub> H <sub>16</sub>	2,2-Dimethylpentane	25	0.00044	3	318	5
C <sub>7</sub> H <sub>16</sub>	2,3-Dimethylpentane	25	0.00052	3	175	5
C <sub>7</sub> H <sub>16</sub>	2,4-Dimethylpentane	25	0.00042	3	323	13
C <sub>7</sub> H <sub>16</sub>	3,3-Dimethylpentane	25	0.00059	3	186	5

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	t/°C	S/mass %	Ref.	<i>k<sub>H</sub>/kPa m<sup>3</sup> mol<sup>-1</sup></i>	Ref.
C <sub>7</sub> H <sub>16</sub> O	1-Heptanol	10	0.25	1		
		25	0.174	1		
		50	0.12	1		
C <sub>7</sub> H <sub>16</sub> O	2-Heptanol	30	0.33	1		
C <sub>7</sub> H <sub>16</sub> O	3-Heptanol	25	0.43	1		
C <sub>7</sub> H <sub>16</sub> O	4-Heptanol	25	0.47	1		
C <sub>7</sub> H <sub>16</sub> O	2-Methyl-2-hexanol	25	1.0	1		
C <sub>7</sub> H <sub>16</sub> O	5-Methyl-2-hexanol	25	0.49	1		
C <sub>7</sub> H <sub>16</sub> O	3-Methyl-3-hexanol	25	1.2	1		
C <sub>7</sub> H <sub>16</sub> O	2,3-Dimethyl-2-pentanol	25	1.5	1		
C <sub>7</sub> H <sub>16</sub> O	2,4-Dimethyl-2-pentanol	25	1.3	1		
C <sub>7</sub> H <sub>16</sub> O	3-Ethyl-3-pentanol	25	1.7	1		
C <sub>7</sub> H <sub>16</sub> O	2,2-Dimethyl-3-pentanol	25	0.82	1		
C <sub>7</sub> H <sub>16</sub> O	2,3-Dimethyl-3-pentanol	25	1.6	1		
C <sub>7</sub> H <sub>16</sub> O	2,4-Dimethyl-3-pentanol	25	0.70	1		
C <sub>7</sub> H <sub>16</sub> O	2,3,3-Trimethyl-2-butanol	40	2.2	1		
C <sub>8</sub> H <sub>4</sub> F <sub>6</sub>	1,3-Bis(trifluoromethyl)benzene	25	0.0041	2		
C <sub>8</sub> H <sub>6</sub> N <sub>2</sub>	Quinoxaline	50	54	6		
C <sub>8</sub> H <sub>6</sub> S	Benzo[b]thiophene	20	0.0130	6		
C <sub>8</sub> H <sub>7</sub> ClO <sub>3</sub>	3-Chloro-4-hydroxy-5-methoxybenzaldehyde	25	0.093	8		
C <sub>8</sub> H <sub>7</sub> ClO <sub>3</sub>	2-Chloro-4-hydroxy-5-methoxybenzaldehyde	25	0.013	8		
C <sub>8</sub> H <sub>7</sub> Cl <sub>3</sub> O	2,4,6-Trichloro-3,5-dimethylphenol	25	0.00050	2		
C <sub>8</sub> H <sub>7</sub> N	Indole	20	0.187	6		
C <sub>8</sub> H <sub>8</sub>	Styrene	25	0.025	4	0.3	15
		50	0.046	4	0.30	13
C <sub>8</sub> H <sub>8</sub> N <sub>2</sub>	2-Methyl-1H-benzimidazole	20	0.145	6		
C <sub>8</sub> H <sub>8</sub> O	Acetophenone	25	0.55			
C <sub>8</sub> H <sub>8</sub> O <sub>2</sub>	Methyl benzoate	20	0.21	10		
C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	Methyl salicylate	30	0.74	10		
C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>	4-Hydroxy-3-methoxybenzaldehyde	25	0.247	8		
C <sub>8</sub> H <sub>9</sub> ClO	4-Chloro-2,5-dimethylphenol	25	0.89	2		
C <sub>8</sub> H <sub>9</sub> ClO	4-Chloro-2,6-dimethylphenol	25	0.52	2		
C <sub>8</sub> H <sub>9</sub> ClO	4-Chloro-3,5-dimethylphenol	25	0.34	2		
C <sub>8</sub> H <sub>10</sub>	Ethylbenzene	0	0.020	4		
		25	0.0169	4	0.887	11
		40	0.0200	4		
C <sub>8</sub> H <sub>10</sub>	<i>o</i> -Xylene	25	0.0173	4	0.565	13
		45	0.021	4		
C <sub>8</sub> H <sub>10</sub>	<i>m</i> -Xylene	0	0.0203	4		
		25	0.016	4	0.730	13
		40	0.022	4		
C <sub>8</sub> H <sub>10</sub>	<i>p</i> -Xylene	0	0.0160	4		
		25	0.018	4	0.578	13
		40	0.022	4		
C <sub>8</sub> H <sub>10</sub> O	Phenetole	25	0.12	10		
C <sub>8</sub> H <sub>10</sub> O	2,4-Xylenol	25	0.787	10		
C <sub>8</sub> H <sub>10</sub> O	3,5-Xylenol	29	0.62	10		
C <sub>8</sub> H <sub>12</sub>	4-Vinylcyclohexene	25	0.005	4		
C <sub>8</sub> H <sub>14</sub>	1-Octyne	25	0.0024	4	7.87	13
C <sub>8</sub> H <sub>16</sub>	1-Octene	25	0.00027	4	96.3	13
C <sub>8</sub> H <sub>16</sub>	Cyclooctane	25	0.00079	4	10.7	13
C <sub>8</sub> H <sub>16</sub>	Ethylcyclohexane	40	0.00066	4		
C <sub>8</sub> H <sub>16</sub>	<i>cis</i> -1,2-Dimethylcyclohexane	25	0.00060	4	36	5
C <sub>8</sub> H <sub>16</sub>	<i>trans</i> -1,4-Dimethylcyclohexane	25	0.000384	4	88.2	5
C <sub>8</sub> H <sub>16</sub>	Propylcyclopentane	25	0.00020	4	90.2	5
C <sub>8</sub> H <sub>16</sub>	1,1,3-Trimethylcyclopentane	25	0.00037	4	159	5
C <sub>8</sub> H <sub>16</sub> O	2-Octanone	25	0.113	10		
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Octanoic acid	25	0.0798	10		

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	<i>t</i> /°C	S/mass %	Ref.	<i>k<sub>H</sub></i> /kPa m <sup>3</sup> mol <sup>-1</sup>	Ref.
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Hexyl acetate	20	0.02	10		
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	sec-Hexyl acetate	20	0.13	10		
C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	Isobutyl isobutanoate	20	0.5	10		
C <sub>8</sub> H <sub>17</sub> Cl	3-(Chloromethyl)heptane	20	0.01	10		
C <sub>8</sub> H <sub>18</sub>	Octane	25	0.000071	4	311	13
		50	0.00010	4		
C <sub>8</sub> H <sub>18</sub>	3-Methylheptane	25	0.000079	4	376	5
C <sub>8</sub> H <sub>18</sub>	2,2,4-Trimethylpentane	25	0.00022	4	307	13
C <sub>8</sub> H <sub>18</sub>	2,3,4-Trimethylpentane	25	0.00018	4	206	13
C <sub>8</sub> H <sub>18</sub> O	Dibutyl ether	20	0.03	10	0.48	13
C <sub>8</sub> H <sub>18</sub> O	1-Octanol	25	0.054	1		
C <sub>8</sub> H <sub>18</sub> O	2-Octanol	25	0.4	1		
C <sub>8</sub> H <sub>18</sub> O	2-Methyl-2-heptanol	30	0.25	1		
C <sub>8</sub> H <sub>18</sub> O	2-Ethyl-1-hexanol	25	0.01	1		
C <sub>8</sub> H <sub>19</sub> N	Dibutylamine	20	0.47	10		
C <sub>8</sub> H <sub>19</sub> N	2-Ethylhexylamine	20	0.25	10		
C <sub>8</sub> H <sub>20</sub> Si	Tetraethylsilane	25	0.0000325	10		
C <sub>9</sub> H <sub>7</sub> N	Quinoline	20	0.633	6		
C <sub>9</sub> H <sub>7</sub> N	Isoquinoline	20	0.452	6		
C <sub>9</sub> H <sub>9</sub> N	3-Methyl-1H-indole	20	0.050	6		
C <sub>9</sub> H <sub>10</sub>	Indan	25	0.010	4		
C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	Ethyl benzoate	25	0.083	20		
C <sub>9</sub> H <sub>12</sub>	1,8-Nonadiyne	25	0.0125	4		
C <sub>9</sub> H <sub>12</sub>	Propylbenzene	25	0.0055	4	1.04	11
C <sub>9</sub> H <sub>12</sub>	Isopropylbenzene	25	0.0056	4	1.47	11
C <sub>9</sub> H <sub>12</sub>	<i>o</i> -Ethyltoluene	25	0.0093	5	0.529	13
C <sub>9</sub> H <sub>12</sub>	<i>p</i> -Ethyltoluene	25	0.0094	5	0.500	13
C <sub>9</sub> H <sub>12</sub>	1,2,3-Trimethylbenzene	25	0.0069	4	0.343	11
C <sub>9</sub> H <sub>12</sub>	1,2,4-Trimethylbenzene	25	0.0056	4	0.569	11
C <sub>9</sub> H <sub>12</sub>	1,3,5-Trimethylbenzene	25	0.00489	4	0.781	11
C <sub>9</sub> H <sub>14</sub> O <sub>6</sub>	Triacetin	25	5.8	10		
C <sub>9</sub> H <sub>16</sub>	1-Nonyne	25	0.00072	4		
C <sub>9</sub> H <sub>18</sub>	1,1,3-Trimethylcyclohexane	25	0.000177	4	105	13
C <sub>9</sub> H <sub>18</sub> O	Diisobutyl ketone	25	0.043	10		
C <sub>9</sub> H <sub>18</sub> O <sub>2</sub>	Nonanoic acid	20	0.0284	10		
C <sub>9</sub> H <sub>20</sub>	Nonane	25	0.000017	4	333	13
		50	0.000022	4		
C <sub>9</sub> H <sub>20</sub>	4-Methyloctane	25	0.0000115	4	1000	5
C <sub>9</sub> H <sub>20</sub>	2,2,5-Trimethylhexane	25	0.00008	4	246	13
C <sub>9</sub> H <sub>20</sub> O	3,5-Dimethyl-4-heptanol	15	0.072	1		
C <sub>9</sub> H <sub>20</sub> O	1-Nonanol	25	0.014	1		
C <sub>9</sub> H <sub>20</sub> O	2-Nonanol	15	0.026	1		
C <sub>9</sub> H <sub>20</sub> O	3-Nonanol	15	0.032	1		
C <sub>9</sub> H <sub>20</sub> O	4-Nonanol	15	0.0026	1		
C <sub>9</sub> H <sub>20</sub> O	5-Nonanol	15	0.0032	1		
C <sub>10</sub> H <sub>7</sub> Cl	1-Chloronaphthalene	25	0.00224	5		
C <sub>10</sub> H <sub>7</sub> Cl	2-Chloronaphthalene	25	0.00117	5		
C <sub>10</sub> H <sub>8</sub>	Naphthalene	10	0.0019	4		
		25	0.0031	4	0.0430	5
		50	0.0082	4		
C <sub>10</sub> H <sub>9</sub> N	3-Methylisoquinoline	20	0.092	6		
C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	Dimethyl phthalate	25	0.40	15		
C <sub>10</sub> H <sub>14</sub>	Butylbenzene	25	0.0015	4	1.33	11
C <sub>10</sub> H <sub>14</sub>	<i>sec</i> -Butylbenzene	25	0.0014	4	1.89	11
C <sub>10</sub> H <sub>14</sub>	<i>tert</i> -Butylbenzene	25	0.0032	4	1.28	11
C <sub>10</sub> H <sub>14</sub>	Isobutylbenzene	25	0.0010	4	3.32	11
C <sub>10</sub> H <sub>14</sub>	<i>p</i> -Cymene	25	0.00234	4	0.80	5
C <sub>10</sub> H <sub>14</sub>	1,2,4,5-Tetramethylbenzene	25	0.000348	4	2.55	11
C <sub>10</sub> H <sub>16</sub>	<i>d</i> -Limonene	0	0.00097	4		
		25	0.00138	4		

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	<i>t</i> /°C	S/mass %	Ref.	<i>k<sub>H</sub></i> /kPa m <sup>3</sup> mol <sup>-1</sup>	Ref.
C <sub>10</sub> H <sub>16</sub> O	Camphor	20	0.01	10		
C <sub>10</sub> H <sub>18</sub>	<i>trans</i> -Decahydronaphthalene	25	0.000089	4	3	13
C <sub>10</sub> H <sub>20</sub>	Pentylcyclopentane	25	0.0000115	4	185	5
C <sub>10</sub> H <sub>20</sub>	1-Decene	25	0.00057	4		
C <sub>10</sub> H <sub>22</sub>	Decane	0	0.0000015	4	479	13
C <sub>10</sub> H <sub>22</sub> O	Diisopentyl ether	20	0.02	10		
C <sub>10</sub> H <sub>22</sub> O	1-Decanol	25	0.0037	1		
C <sub>11</sub> H <sub>10</sub>	1-Methylnaphthalene	25	0.0028	4	0.0450	12
C <sub>11</sub> H <sub>10</sub>	2-Methylnaphthalene	25	0.0025	4	0.051	12
C <sub>11</sub> H <sub>16</sub>	Pentylbenzene	25	0.00105	5	1.69	11
C <sub>12</sub> Cl <sub>10</sub>	Decachlorobiphenyl	25	0.00000000012	7	0.0208	7
C <sub>12</sub> HCl <sub>9</sub>	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	25	0.000000018	7		
C <sub>12</sub> H <sub>2</sub> Cl <sub>8</sub>	2,2',3,3'5,5',6,6'-Octachlorobiphenyl	25	0.0000003	7	0.0381	7
C <sub>12</sub> H <sub>3</sub> Cl <sub>7</sub>	2,2',3,3',4,4',6-Heptachlorobiphenyl	25	0.0000002	7	0.0054	7
C <sub>12</sub> H <sub>4</sub> Cl <sub>6</sub>	2,2',3,3',4,4'-Hexachlorobiphenyl	25	0.00000006	7	0.0119	7
C <sub>12</sub> H <sub>4</sub> Cl <sub>6</sub>	2,2',4,4',6,6'-Hexachlorobiphenyl	25	0.00000007	7	0.818	7
C <sub>12</sub> H <sub>4</sub> Cl <sub>6</sub>	2,2',3,3',6,6'-Hexachlorobiphenyl	25	0.00000008	7		
C <sub>12</sub> H <sub>5</sub> Cl <sub>5</sub>	2,3,4,5,6-Pentachlorobiphenyl	25	0.0000008	7		
C <sub>12</sub> H <sub>5</sub> Cl <sub>5</sub>	2,2',4,5,5'-Pentachlorobiphenyl	25	0.000001	7	0.0355	7
C <sub>12</sub> H <sub>6</sub> Cl <sub>4</sub>	2,3,4,5-Tetrachlorobiphenyl	25	0.000002	7		
C <sub>12</sub> H <sub>6</sub> Cl <sub>4</sub>	2,2',4',5-Tetrachlorobiphenyl	25	0.0000016	9		
C <sub>12</sub> H <sub>7</sub> Cl <sub>3</sub>	2,4,5-Trichlorobiphenyl	25	0.000014	7	0.0243	7
C <sub>12</sub> H <sub>7</sub> Cl <sub>3</sub>	2,4,6-Trichlorobiphenyl	25	0.00002	7	0.0495	7
C <sub>12</sub> H <sub>8</sub> Cl <sub>2</sub>	2,5-Dichlorobiphenyl	25	0.0002	7	0.0201	7
C <sub>12</sub> H <sub>8</sub> Cl <sub>2</sub>	2,6-Dichlorobiphenyl	25	0.00014	7		
C <sub>12</sub> H <sub>8</sub> O	Dibenzofuran	25	0.000656	6	0.011	12
C <sub>12</sub> H <sub>8</sub> S	Dibenzothiophene	25	0.000103	6		
C <sub>12</sub> H <sub>9</sub> Cl	2-Chlorobiphenyl	25	0.00055	7	0.0701	7
C <sub>12</sub> H <sub>9</sub> N	Carbazole	22	0.000120	6		
C <sub>12</sub> H <sub>10</sub>	Acenaphthene	0	0.00015	4		
		25	0.00038	4	0.012	12
		50	0.00092	4		
C <sub>12</sub> H <sub>10</sub>	Biphenyl	0	0.000272	4		
		25	0.00072	4	0.028	5
		50	0.0022	4		
C <sub>12</sub> H <sub>10</sub> N <sub>2</sub> O	<i>N</i> -Nitrosodiphenylamine	25	0.0035	17		
C <sub>12</sub> H <sub>10</sub> O	Diphenyl ether	25	0.00180	6	0.027	13
C <sub>12</sub> H <sub>12</sub>	1-Ethynlnaphthalene	25	0.00101	4	0.039	12
C <sub>12</sub> H <sub>12</sub>	2-Ethynlnaphthalene	25	0.00080	4	0.078	12
C <sub>12</sub> H <sub>12</sub>	1,3-Dimethylnaphthalene	25	0.0008	4		
C <sub>12</sub> H <sub>12</sub>	1,4-Dimethylnaphthalene	25	0.00114	4		
C <sub>12</sub> H <sub>12</sub>	1,5-Dimethylnaphthalene	25	0.00031	4		
C <sub>12</sub> H <sub>12</sub>	2,3-Dimethylnaphthalene	25	0.00025	4		
C <sub>12</sub> H <sub>12</sub>	2,6-Dimethylnaphthalene	25	0.00017	4		
C <sub>12</sub> H <sub>18</sub>	Hexylbenzene	25	0.00021	4		
C <sub>12</sub> H <sub>26</sub>	Dodecane	25	0.0000037	4	750	5
C <sub>12</sub> H <sub>26</sub> O	1-Dodecanol	25	0.0004	1		
C <sub>12</sub> H <sub>27</sub> O <sub>4</sub> P	Tributyl phosphate	25	0.039	10		
C <sub>13</sub> H <sub>9</sub> N	Acridine	25	0.00466	6		
C <sub>13</sub> H <sub>9</sub> N	Benzo[f]quinoline	25	0.0079	6		
C <sub>13</sub> H <sub>10</sub>	9H-Fluorene	0	0.00007	4		
		25	0.00019	4	0.0079	12
		50	0.00063	4		
C <sub>13</sub> H <sub>12</sub>	Diphenylmethane	25	0.000141	4	0.001	12
C <sub>13</sub> H <sub>14</sub>	1,4,5-Trimethylnaphthalene	25	0.00021	4		
C <sub>14</sub> H <sub>10</sub>	Anthracene	0	0.000022	4		
		25	0.000062	4	0.0040	12
C <sub>14</sub> H <sub>10</sub>	Phenanthrene	10	0.000050	4		
		25	0.00011	4	0.0032	12
		50	0.00041	4		

**AQUEOUS SOLUBILITY AND HENRY'S LAW CONSTANTS OF ORGANIC COMPOUNDS (continued)**

Mol. Form.	Name	t/°C	S/mass %	Ref.	k <sub>H</sub> /kPa m <sup>3</sup> mol <sup>-1</sup>	Ref.
C <sub>14</sub> H <sub>12</sub>	<i>trans</i> -Stilbene	25	0.000029	4	0.040	12
C <sub>14</sub> H <sub>14</sub>	1,2-Diphenylethane	25	0.00044	6	0.017	12
C <sub>14</sub> H <sub>14</sub> O	Dibenzyl ether	35	0.0040	10		
C <sub>14</sub> H <sub>30</sub>	Tetradecane	25	0.000012	5		
C <sub>14</sub> H <sub>30</sub> O	1-Tetradecanol	25	0.000031	1		
C <sub>15</sub> H <sub>12</sub>	2-Methylanthracene	25	0.0000030	4		
C <sub>15</sub> H <sub>12</sub>	9-Methylanthracene	25	0.000026	4		
C <sub>15</sub> H <sub>12</sub>	1-Methylphenanthrene	25	0.0000269	4		
C <sub>15</sub> H <sub>32</sub> O	1-Pentadecanol	25	0.000010	1		
C <sub>16</sub> H <sub>10</sub>	Fluoranthene	25	0.000024	4	0.0010	12
C <sub>16</sub> H <sub>10</sub>	Pyrene	25	0.0000132	4	0.00092	12
		50	0.00009	4		
C <sub>16</sub> H <sub>14</sub>	9,10-Dimethylanthracene	25	0.0000056	4		
C <sub>16</sub> H <sub>22</sub> O <sub>4</sub>	Dibutyl phthalate	25	0.00112	15		
C <sub>16</sub> H <sub>34</sub> O	1-Hexadecanol	25	0.000003	1		
C <sub>17</sub> H <sub>12</sub>	11H-Benzo[a]fluorene	25	0.0000045	4		
C <sub>17</sub> H <sub>12</sub>	11H-Benzo[b]fluorene	25	0.0000002	4		
C <sub>18</sub> H <sub>12</sub>	Benz[a]anthracene	25	0.0000011	4	0.00058	12
C <sub>18</sub> H <sub>12</sub>	Chrysene	25	0.00000019	4	0.006	12
C <sub>18</sub> H <sub>12</sub>	Naphthacene	25	0.00000006	4	0.000004	12
C <sub>18</sub> H <sub>12</sub>	Triphenylene	25	0.0000041	4	0.00001	12
C <sub>18</sub> H <sub>12</sub> N <sub>2</sub>	2,2'-Biquinoline	24	0.000102	6		
C <sub>18</sub> H <sub>34</sub> O <sub>4</sub>	Dibutyl sebacate	20	0.004	10		
C <sub>19</sub> H <sub>14</sub>	5-Methylchrysene	27	0.0000062	4		
C <sub>19</sub> H <sub>14</sub>	9-Methylbenz[a]anthracene	27	0.0000066	4		
C <sub>19</sub> H <sub>14</sub>	10-Methylbenz[a]anthracene	25	0.0000055	4		
C <sub>20</sub> H <sub>12</sub>	Benzo[a]pyrene	25	0.00000038	4	0.000046	12
C <sub>20</sub> H <sub>12</sub>	Perylene	25	0.00000004	4	0.000003	12
C <sub>20</sub> H <sub>12</sub>	Benzo[e]pyrene	20	0.00000046	4	0.00002	12
C <sub>20</sub> H <sub>13</sub> N	13H-Dibenzo[a,i]carbazole	24	0.00000104	6		
C <sub>20</sub> H <sub>14</sub>	1,2-Dihydrobenz[j]aceanthrylene	25	0.00000036	6		
C <sub>20</sub> H <sub>42</sub>	Eicosane	25	0.00000019	4		
C <sub>21</sub> H <sub>13</sub> N	Dibenz[a,j]acridine	25	0.000016	6		
C <sub>21</sub> H <sub>16</sub>	1,2-Dihydro-3-methylbenz[j]aceanthrylene	25	0.00000022	6		
C <sub>22</sub> H <sub>12</sub>	Benzo[ghi]perylene	25	0.00000026	4	0.000075	12
C <sub>22</sub> H <sub>14</sub>	Picene	25	0.00000025	4		
C <sub>22</sub> H <sub>14</sub>	Benzo[b]triphenylene	25	0.0000027	4		
C <sub>22</sub> H <sub>14</sub>	Dibenz[a,h]anthracene	25	0.0000006	4		
C <sub>22</sub> H <sub>14</sub>	Dibenz[a,j]anthracene	25	0.0000012	4		
C <sub>22</sub> H <sub>44</sub> O <sub>2</sub>	Butyl stearate	25	0.2	10		
C <sub>24</sub> H <sub>12</sub>	Coronene	25	0.00000014	4		